

UNIVERSITY OF MINNESOTA COMPUTER CENTER
Deadstart Systems Newsletter

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NOTICE OF CHANGES TO THE SYSTEM

Jeff Woolsey changed CALLPRG so that the fast attach file CALLPRG is attached after terminal control is disabled rather than before. This change makes it possible to stop a CALLPRG request if permanent file dumps are running and the device where the fast attach file is stored is interlocked.

Kevin Matthews installed his proposed change to SYSEDIT (see DSN 7,14 p. 93). Kevin also changed the way the Cyber 74 and Cyber 730 are referenced in PPTEXT and various other internal places in the operating system. The Cyber 730, formerly referred to as C172 is now Saturn; the Cyber 74, formerly referred to as C74 is now URANUS. References to the 6400, now a Cyber 172, will continue to be MERITSS. It should be stressed that this change is totally invisible to everyone except the system staff.

Andy Hastings expanded the random index used to reference VSNTYPE in TAPES, RESEX, MAGNET and EXPLIB to an 18-bit number from a 12-bit. The reason is that the RESEXES file is getting to be 2**12 PRU's in length so that a 12 bit index is insufficient.

Paul Thompson corrected the E,JN command so that jobs are reported even during operations when the user index of the job is changed to 377777 (SYSTEMX) such as during tape assignment. Paul also changed DUMPPF/LOADPF so that when errors occur and the package is being used from time sharing origin, error messages are printed at the terminal.

Don Mears installed a change from CDC which makes R4 disks compatible with R5 disks.

Marshall Midden installed a change into ODV, the routine which performs auto-divert, which will cause all large print, punch and plot files to be set with a forms code of 99. This will allow operations to deal with large queue files and to regulate when they are printed, punched or plotted, Marshall also changed QXEROX so that a tape is not requested if there are no Xerox 9700 bound queue files.

Joe Goodman changed USERS/DSD to include the ECSP and PMSP tags in NOSTEXT and reworked the FLAGS display so that flag descriptions can be longer. Joe also installed a new version of UNPAGE with unspecified changes.

PROPOSED CHANGES TO THE SYSTEM

XEROX 9700 SUPPORT - by S. E. Collins

In DSN (7,6 p. 31) MJF and KMM presented a proposal for supporting the 9700. Their proposal was to create a new ROUTE command, which had numerous additional parameters. They proposed allowing the user to control the formatting of 9700 output in the ROUTE command. While this proposal did allow the user to take advantage of a number of the capabilities of the 9700, it did not allow the user full flexibility, and the implementation was very awkward.

In DSN (7,9 p. 57) another 9700 proposal was presented. This proposal presented the opposite extreme: The implementation was simple, but it left the user with little control over the printing of a file. As the 9700 service is currently being implemented, the user has no control over the output unless directives are added to the text of the file. Even using these directives, very little flexibility is permitted. It is not possible for the user to take advantage of the many special capabilities of the 9700.

The proposal I am presenting will attempt to allow users to easily use the basic features of the 9700, and will allow more ambitious users to take advantage of any and all features available on the 9700, both the current features and any which may become available in the future.

There are two ways of looking at the 9700 service:

1. The 9700 is a fast, high quality printer.
2. The 9700 is a powerful, programmable output device.

It should be easy for users to take advantage of the line-printer capabilities of the 9700. They should not be forced to learn obscure details about the 9700, nor should they have to alter their output files to print them on the 9700. However, it should be possible for all users to take advantage of the more elaborate features the 9700 provides. I am proposing a method of handling the 9700 which will satisfy both types of use.

1. Line printer mode.

A user should be able to treat the 9700 as a line printer, and not have to do any special processing of the output file.

Currently, users can select various forms to be used to print files on line printers. By specifying the proper forms code, users can direct their output be printed on unlined paper, several types of mailing labels, 8.5 by 11 paper, and various other selections. This is not unlike the selections which can be chosen for 9700 output.

I propose using forms codes to select the portrait/landscape and duplex/simplex options on the 9700. A user may specify a forms code on the ROUTE statement when routing a file. The following forms codes will select the following options:

- L Landscape mode, simplex (this will be the default)
- P Portrait mode, simplex.
- LD Landscape mode, duplex
- PD Portrait mode, duplex

Support of more forms codes can be added if user demand indicates the need.

Secondly, the 9700 should automatically process line printer carriage controls. The 9700 will process the following carriage control characters, exactly as they are described in the NOS Reference Manual.

- 1 Skip to top of next page before printing
- 0 Skip one line before printing
- Skip two lines before printing
- + Overprint previous print line
- / Do not advance after printing
- 2 Skip to last line of page before printing
- 8-3 Skip to format channels 1-6 before printing
- H-C Skip to format channels 1-6 after printing
- S Select 66 lines per page
- T Select 88 lines per page
- R Select auto-eject (64/85 lines per page)
- Q Deselect auto-eject

2. Special processing mode.

If a user wants to take advantage of any of the more powerful features of the 9700 (multiple fonts, graphics, etc.), the user will, necessarily, be familiar with the actual job set-up for the 9700. I propose a method to allow users to set up their own jobs to be run on the 9700.

If the user selects the forms code "SP" (special processing), the file being routed must contain a 9700 job preceding the text to be formatted (text processors, such as PROSE, XICS, and graphics processors, will place the necessary job before the output they produce, if they use any special features of the 9700).

Implementation details.

In the implementation of this proposal, every job sent to the 9700 will have a 9700 job preceding it. For "SP" jobs, the user will place the 9700 job in the file. For all other jobs, the XEROX queue dumping routine will place the 9700 job in the file. The 9700 job inserted will depend on the form code the user selects (there will be a different job for each output format). However, all "line printer mode" files would be grouped together following a single 9700 job; similar to what is currently being done.

This method allows complete control of the output at the UCC side; it will never be necessary for SAGO, or any other service bureau, to perform any special processing functions for us. This not only makes UCC less dependent on outside support, it also gives us more flexibility in changing the formats used.

SYSTEM MAINTENANCE: People and Procedures

Last Weeks Systems Group Meeting - by T. W. Lanzatella

The following proposals were discussed.

- 1) Kevin's proposed change to SYSEDIT was accepted (see DSN 7,14 p. 93).
- 2) Paul Thompson's proposal for Q was accepted with several stipulations.
 - a) The name should be QUEUE.
 - b) The utility can only be used by people with password change permission.
 - c) Keywords will be LIST, PURGE and DAYFILE.
 - d) A complete writeup must be circulated and accepted before the utility will be installed.

Larry Liddiard recounted the decisions from the latest System strategy committee meeting.

- a) IPC VAX details and problems were listed. Most are now out of date except that Marshall Midden will be working on drivers for Dichomed, Digitizer and Calcomp color plotter.
- b) We must convert to NAM for ports on the 2550. The date for this conversion is now set for 6 September.

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Callprg and Library Tape News - by M. Riviere

On August 18, S. Yen will be introducing SCSS, an interactive version of SPSS, as a control statement callable package in the Callprg index. The change will take place in the three Cybers.

The next date for Callprg index and Library Tape changes is September 1. Modifications for that date should be requested before August 20, by noon.

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MERITSS (Cyber 172) Deadstart Dump Analysis from 7/1-8/9 - B. E. Blasing

<u>Time</u>	<u>Description</u>	<u>Dump Tape</u>
7/2 - 09:11	PFM hung when a scratch pack was mounted to test a recently fixed disk drive. Possibly due to an incorrectly entered INITIALIZE command, the pack was erroneously recovered by the system and PFM tried to read a permanent file from it.	DD2
7/3 - 07:47	Due to problems with bringing the system up on 7/2, the dayfiles got placed on the wrong device, so PFM hung when DFTERM was run to terminate yesterday's dayfiles.	No Dump